



PUBLIC HEALTH ADVISORY MEASLES CASES IN ALAMEDA COUNTY AND CALIFORNIA

March 28, 2014

SITUATION: A confirmed case of measles was identified this week in a resident with a recent history of international travel. This is the second case of measles reported in Alameda County since January 1, 2014.

BACKGROUND: As of March 28, 2014, 49 confirmed cases of measles have been reported to the California Department of Public Health (CDPH) (not including Alameda County's most recent case) with onsets since January 1, 2014. This is a higher number of cases than expected at this time of year; from 2008-2013, 8 to 31 confirmed measles cases were reported annually. Many cases have occurred among returning international travelers and their contacts and over half occurred in unvaccinated persons. However, a few cases have occurred in persons without a history of such exposures and 2 cases have occurred in patients with documented receipt of measles vaccine. CDPH has issued a News Release at <http://www.cdph.ca.gov/Pages/NR14-035.aspx>.

ACTIONS REQUESTED OF CLINICIANS:

1. **SUSPECT measles in a patient with fever and rash.** Ask about measles immunization history and international travel or exposure to returning international travelers in the 3 weeks prior to illness; consider the diagnosis regardless of travel history.
2. **IMPLEMENT AIRBORNE PRECAUTIONS immediately** for suspected cases. Mask and isolate patient in an airborne infection isolation room. Do not use a regular exam room for at least two hours after a suspected measles patient has left the room. Notify your facility's Infection Control Professional immediately.
3. **REPORT suspect measles cases immediately** to Alameda County Public Health Department (ACPHD) **by phone at (510) 267-3250**; after hours, call (925) 422-7595 to speak to the Public Health On-Call Duty Officer.
4. **TEST suspected cases.** Collect blood, a throat or NP swab, and urine and HOLD for rapid testing by the Public Health Laboratory (PHL) network. Call ACPHD for prior approval for measles testing by the PHL.
5. **ADVISE** patients with suspected measles to stay home until at least 4 days after rash onset and/or until cleared by ACPHD to resume usual activities.
6. **VACCINATE** patients born after 1956 who have not received 2 documented doses of MMR, unless contraindicated.

Clinical Presentation

Measles prodromal symptoms occur 8 to 12 days after exposure, beginning with a mild to moderate fever accompanied by cough, coryza, and conjunctivitis. Two to three days later, Koplik spots, tiny bluish-white lesions on a red center on the buccal mucosa, may appear. Fever may spike to >104°F. An erythematous, blotchy maculopapular rash appears around the same time, usually first on the face, along the hairline and behind the ears. This slightly itchy rash rapidly spreads downward to the chest and back and finally, to the thighs and feet. In approximately one week, the rash fades in the same sequence that it appeared.

Infection Control

Mask and isolate patients with suspected measles immediately in an airborne infection isolation room if available; otherwise, place in a private room with the door closed. Do not use a regular exam room for at least 2 hours after the suspected case has left the room. Healthcare workers who enter the room should have documented immunity



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(2 doses MMR or laboratory evidence of immunity by measles IgG); regardless of immune status, they should use a N95 respirator or higher level of protection. Limit movement and transport of the patient for tests; if essential, mask the patient and notify receiving location of the patient's suspected diagnosis. Note the staff and patients who were in area during the time the suspect measles patient was in the facility and for one hour after the patient left. For additional guidance:

<http://www.cdph.ca.gov/HealthInfo/discond/Documents/CDPHHCFacilityICRecsforSuspectMeaslesPatients.pdf>.

Report and Test Suspected Cases

Call ACPHD at (510) 267-3250 (after business hours, 925-422-7595) immediately to report suspected cases. Do not wait for laboratory confirmation. Collect specimens as soon as possible for expedited testing by the Public Health Laboratory (PHL) rather than a commercial laboratory. **Call ACPHD at (510) 267-3250 for prior approval** for PHL testing. Call the ACPHD PHL for additional technical specimen processing instructions at (510) 268-2700. Ship specimens to the Alameda County Public Health Laboratory, 499 5th Street, Oakland, CA 94607. Obtain all of the following:

1. Respiratory swab for viral culture and PCR: a throat swab is preferred (nasopharyngeal swab is acceptable), collected on a synthetic (e.g., Dacron) swab only and placed in 2-3 ml of Viral Transport Media (VTM). Do not use Amies or other bacterial media. Store and ship at 2°- 8°C.
2. Urine for viral culture and PCR: collect 50-100 ml from the first part of the urine stream in a sterile cup. Centrifuge at 2500 x g for 15 minutes at 4°C. Re-suspend the pellet in 1-2 ml of VTM. Store and ship at -70°C or colder. If unable to process specimen, store and ship the entire sample at 2°- 8°C.
3. Blood for serology: collect 5 ml of blood in a red top tube. Spin and retain serum.

Isolate Suspected Cases at Home

Provide patient with a supply of surgical masks. They should return home by private car, not public transportation, and accompanied only by someone with immunity to measles. Measles patients are infectious from 4 days before rash onset until 4 days after rash onset and should stay at home with no visitors during this time. ACPHD will contact the patient to advise them when they can be released from home isolation. ACPHD will also identify contacts to confirmed cases to evaluate their measles immunity status and if needed, intervene with post-exposure prophylaxis with MMR vaccine (or Immune Globulin) and home quarantine. ACPHD may request information from clinicians about exposed health care providers and the measles patient's family or friends.

Vaccinate Susceptible Patients

All patients born after 1956 should be vaccinated with 2 doses of MMR unless they have laboratory evidence of immunity by measles IgG. Groups that are at increased risk for measles include health care workers, international travelers, women of childbearing age, and students in college or trade school. Measles circulates in most regions of the world outside of North and South America. Californians with measles in recent years have reported travel to the Philippines, Germany, France, England, India, and China, among other destinations. Although the MMR vaccine is routinely given at 12 months of age and 4-6 years of age, infants traveling to countries where measles is circulating can be vaccinated as early as 6 months of age. For more information, see:

<http://www.cdc.gov/mmwr/preview/mmwrhtml/rr6204a1.htm>

Additional Information

Alameda County Public Health Department: <http://www.acphd.org/measles.aspx>

California Department of Public Health: <http://www.cdph.ca.gov/HealthInfo/discond/Pages/Measles.aspx>

Health ALERT: conveys the highest level of importance; warrants immediate action or attention.

Health ADVISORY: provides important information for a specific incident or situation; may not require immediate action.

Health UPDATE: provides updated information regarding an incident or situation; unlikely to require immediate action.